#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-021749 Address: 333 Burma Road **Date Inspected:** 10-Mar-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

**CWI Name:** Mr. Sha Zhi **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG Segment** 

#### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Bay 14

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) repair welding of weld joint SEG3020BB-064 located on Bottom Plate to Vertical Shear Plate of OBG Segment 14W. ZPMC Welder is identified as 045246. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G-(2F)-FCM-Repair, which is used as per Critical Welding Repair (CWR) B-CWR3-2752.

SMAW repair welding of weld joint SEG3020AZ-202, 212 and 247 located on I-Rib stiffener to Floor Beam of OBG Segment 14W. ZPMC Welder is identified as 045246. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G-(3F)-FCM-Repair, which is used as per Welding Repair report (WRR) B-WR20376.

Flux Core Arc Welding (FCAW) welding of weld joint SEG3020AW-097, 098, 099, 100, 101 and 102 located on Vertical Plate Stiffener to Floor Beam of OBG Segment 14W. ZPMC Welder is identified as 066912. ZPMC Quality Control (QC) is identified as Mr. An Qing Xing. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2231-ESAB.

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FCAW welding of weld joint SEG3020C-056 located on Side Plate to Floor beam of OBG Segment 14W. ZPMC Welder is identified as 047866. ZPMC Quality Control (QC) is identified as Mr. An Qing Xing. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-ESAB.

FCAW welding of weld joint SEG3020AY-117, 118, 119 120 and 121 located on I-ribs Stiffener to Floor beam of OBG Segment 14W. ZPMC Welder is identified as 204730. ZPMC Quality Control (QC) is identified as Mr. An Qing Xing. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-ESAB.

FCAW welding of weld joint SEG3020AY-117, 118, 119 120 and 121 located on I-ribs stiffener to Floor beam of OBG Segment 14W. ZPMC Welder is identified as 067275. ZPMC Quality Control (QC) is identified as Mr. An Qing Xing. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-ESAB.

FCAW welding of weld joint SEG3020AJ-460, 455 and 450 located on I-ribs stiffener to Floor beam of OBG Segment 14W. ZPMC Welder is identified as 066673. ZPMC Quality Control (QC) is identified as Mr. An Qing Xing. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-ESAB.

SMAW welding of weld joint DP3120-001-014 located on Deck Panel to Deck Panel Diaphragm of OBG Segment 13AW. ZPMC Welder is identified as 066361. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3013K-154 and 155 located on Side Plate I-stiffener to Stiffener of OBG Segment 13AW. ZPMC Welder is identified as 067603. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-B-U2-FCM-1.

SMAW welding of weld joint SEG3013M-056 and 057 located on Side Plate I-stiffener to Floor Beam of OBG Segment 13AW. ZPMC Welder is identified as 069683. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3013D-139 located on Side Plate I-stiffener to Floor Beam at panel point 119. 65 of OBG Segment 13AW. ZPMC Welder is identified as 067609. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3013V-362 located on Longitudinal Diaphragm to Floor Beam of OBG Segment 13AW. ZPMC Welder is identified as 066002. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-Tc-U4b-FCM-1.

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SMAW welding of weld joint SEG3013G-019 located on Deck Panel Diaphragm to Deck Panel Diaphragm of OBG Segment 13AW. ZPMC Welder is identified as 045143. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3013C-154, 156 and 152 located on Deck Panel to Edge Plate of OBG Segment 13AW. ZPMC Welder is identified as 066765. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2114-FCM-1.

This QA inspector observed ZPMC personnel performed Magnetic Particle Testing (MT) on Floor Beam to Floor Beam Flange. The Floor beam is identified as FB3329 and weld number is identified as FB3329-001-018 and 019. See the attached pictures.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





#### **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

Inspected By:	Kumar,Vibin	Quality Assurance Inspector
Reviewed By:	Patel, Hiranch	QA Reviewer